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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
08/773,677	12/24/96	KA0	R 66263

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A1M1/0825

EXAMINER

MARCANTONI, P

ART UNIT PAPER NUMBER

1108

DATE MAILED:

08/25/97

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

# Office Action Summary

Application No.  
**08/773,677**

Applicant(s)  
**KAO et al.**

Examiner  
**Paul Marcantoni**

Group Art Unit  
**1108**



☒ Responsive to communication(s) filed on Jun 23, 1997

☐ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

## Disposition of Claims

☒ Claim(s) 1-11 is/are pending in the application.

Of the above, claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

☐ Claim(s) \_\_\_\_\_ is/are allowed.

☒ Claim(s) 1-11 is/are rejected.

☐ Claim(s) \_\_\_\_\_ is/are objected to.

☐ Claims \_\_\_\_\_ are subject to restriction or election requirement.

## Application Papers

☒ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on \_\_\_\_\_ is ☐ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. § 119

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some\* ☐ None of the CERTIFIED copies of the priority documents have been  
☐ received.

☐ received in Application No. (Series Code/Serial Number) \_\_\_\_\_.

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\*Certified copies not received: \_\_\_\_\_.

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

## Attachment(s)

☒ Notice of References Cited, PTO-892

☒ Information Disclosure Statement(s), PTO-1449, Paper No(s). 6-7

☐ Interview Summary, PTO-413

☒ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

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The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rostoker et al., Mason et al., Pichat, Meegoda et al., or Detering et al in view of Lewis.

**Rostoker et al.** teach that a waste material such as contaminated soil is heated in a furnace to a molten state and then the molten material is cooled by quenching (see col.4, third paragraph and last paragraph and col.10, line 43 for quenching). Rostoker et al. further teach that this quenched glassy material may be added as a filler to concrete which contains cement and aggregate.

**Mason et al.** teach a method for processing wastes by glassifying the waste and teaches that it may be ground to form a glass frit. Note that a frit is ground glass so it must be ground or pulverized to comminute the particles.

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**Pichat** teaches a waste incineration process which is applicable to "all" types of waste by heating to 1000°C and adding a material containing calcium carbonate (i.e. CaO source), silicon oxide, aluminum oxide, iron oxide. Pichat further teaches that the material formed is non-crystalline (ie a glass or amorphous) and has hydraulic properties which makes it cementitious (all claims, and col.3, last paragraph).

**Meegoda et al.** teach a process for remediating Cr contaminated soil by ex-situ vitrification and teaches that this glassy material may be used as an aggregate for highway construction. It is old in the art and worth noting that concrete is one example of a highway material (see abstract).

**Detering et al.** teach a process wherein soil is contaminated intentionally for study with various metals and melted to produce a glassy product. Detering et al. teach that the material formed is environmentally safe (see abstract).

The references above would appear to differ from the presently claimed invention because they do not teach the specific glass composition of the applicants' claimed invention nor the fluxing agent. However, **Lewis** teaches a glass composition that contains the same ingredients in overlapping amounts. Note

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that the applicants' usage of "about" claim language permits some tolerance and about 17% can be construed to read upon 20%. It is the examiner's position that vitrification of waste such as contaminated soil is old in the art and the use of a specific glass composition would have been an obvious design choice for one of ordinary skill in the art because a multitude of glass compositions lead to an environmentally safe product containing waste that will not leach and cause possible contamination of the environment (i.e. groundwater).

Applicants are also referred to the references not cited above which have been cited of interest as relevant art available to applicants at the time of their invention.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Paul Marcantoni  
whose telephone number is (703) 308-1196.

August 18, 1997



PAUL MARCANTONI  
PRIMARY EXAMINER  
GROUP 1100